

Application Serial No. 10/590,684
Official Action Mailed: June 2, 2009
Amendment Dated: July 1, 2009

IN THE CLAIMS:

Please cancel claims 1-9 amend claims 10, 20, 24, 26 and add new claim 28 as follows:

1.-9. (Canceled)

10. (Currently Amended) ~~An auxiliary supporting unit~~ A boarding bridge,
comprising:

a tunnel for carrying passengers;

an elevator system for changing the height of the tunnel;

a wheel mechanism for driving the tunnel to extend or retract, provided with

a beam for supporting the elevation system; and

wheels, attached to the beam through a bearing assembly; and

an auxiliary supporting unit, defined at an outside of the wheels and provided with

a leg support which, attached under both ends of the beam and defined outside the wheels, wherein the leg support can be driven to extend and retract; and

a foot portion, attached to one end of the leg support, wherein the foot portion can be supported on the ground when the leg support is extended and can leave the ground when the leg support is retracted.

11. (Original) The boarding bridge as claimed in claim 10, wherein the foot portion is a universal wheel, the first end of the leg support is mounted under the beam and the second end of the leg support is connected to the universal wheel.

12. (Original) The boarding bridge as claimed in claim 11, wherein a buffer is further provided between the leg support and the foot portion.

13. (Original) The boarding bridge as claimed in claim 10, wherein the leg support is a power-driven thruster, which has a fixed part mounted under the beam and a moving part connected to the foot portion.

14. (Original) The boarding bridge as claimed in claim 13, wherein the foot portion is configured into a supporting seat.

15. (Original) The boarding bridge as claimed in claim 13, wherein the foot portion is a universal wheel.

16. (Original) The boarding bridge as claimed in claim 14, wherein the moving part of the power-driven thruster is connected to the supporting seat via a hinge.

17. (Original) The boarding bridge as claimed in claim 13, wherein the power-driven thruster is a hydraulic cylinder or an electrical thruster.

18. (Original) The boarding bridge as claimed in claim 15, wherein an angle detector is in coaxial connection with the bearing assembly for measuring an angle of wheel mechanism turned relative to a longitudinal axis.

19. (Original) The boarding bridge as claimed in claim 12, wherein the foot portion is driven to extend to be supported on the ground with a pressure by adjusting the leg support of the auxiliary supporting unit.

20. (Currently Amended) A method for improving stability of a boarding bridge, wherein the boarding bridge is provided with

a tunnel for carrying passengers;

an elevation system for changing the height of the tunnel;

a wheel mechanism for driving the tunnel to extend or retract, provided with

a beam for supporting the elevation system; and

wheels, attached to the beam through a bearing assembly, wherein the method

comprises:

providing a leg support which can be driven to extend and retract, attached under ends of the beam and defined outside of the wheels; and

providing a foot portion attached to one end of the leg support, wherein the foot portion can be supported on the ground when the leg support is extended and can leave the ground when the leg support is retracted;

~~providing an angle detector coupled to the bearing assembly for obtaining signals in relation with~~detecting a direction and an angle at which the wheel mechanism is turned;

extending the leg support to drive the foot portion to be supported on the ground when the detected angle is larger than a first predetermined value;

retracting the leg support when the detected angle is smaller than a second predetermined value.

21. (Previously Presented) The method as claimed in claim 20, wherein the first predetermined value is larger than the second predetermined value.

22. (Previously Presented) The method as claimed in claim 21, further comprising the step of defining the leg support into an inactive status when the bridge moves into the area where an angle to which the wheel mechanism is turned is larger than the second

predetermined angle but smaller than the first predetermined angle in order to avoid the leg support from being extended or being retracted frequently.

23. (Previously Presented) The method as claimed in claim 20, wherein the foot portion is configured into a universal wheel.

24. (Currently Amended) The method as claimed in claim 21, further comprising the steps of:

providing a buffer between the foot portion and the leg support; and

extending the leg support until the foot portion is supported on the ground with a pressure so as to balance torsion force of the boarding bridge when the boarding bridge is moving.

25. (Previously Presented) The method as claimed in claim 20, wherein the foot portion is configured into a supporting seat in hinge joint with the leg support.

26. (Currently Amended) The method as claimed in claim 20, further comprising the step of providing a power-driven mechanism ~~in order to~~ drive the leg support to extend or retract.

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27. (Currently Amended) The method as claimed in claim 20, further comprising the step of providing a manual mechanism to drive the leg support to extend or retract.

28. (New) The method as claimed in claim 20, further comprising the step of providing an angle detector coupled to the bearing assembly for obtaining signals in relation with the direction and the angle at which the wheel mechanism is turned.